

A low-angle shot of a mountain biker in a teal and black jersey, wearing a helmet and goggles, riding a Specialized mountain bike on a dirt trail. The bike has 'SPECIALIZED' and 'FOX' branding. The background is a clear blue sky with light clouds and a reddish-brown hillside.

JENSON

USA



Project – **Jenson** USA



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ABOUT THE COMPANY

Jenson USA is a leading online and retail destination for cycling enthusiasts, offering a wide selection of bicycles, parts, accessories, and apparel from top industry brands. Founded in 1994 and headquartered in Riverside, California, Jenson USA has built a strong reputation for its expert customer service, competitive pricing, and passion for the cycling community.

With a mission to inspire people to ride, explore, and experience the joy of cycling, Jenson USA serves everyone from beginners to elite riders. The company combines the convenience of e-commerce with personalized support from experienced bike professionals, helping customers find the right products for their needs.

QUESTIONS :-

- 1.FIND THE TOTAL NUMBER OF PRODUCTS SOLD BY EACH STORE ALONG WITH THE STORE NAME.
- 2.CALCULATE THE CUMULATIVE SUM OF QUANTITIES SOLD FOR EACH PRODUCT OVER TIME.
- 3.FIND THE PRODUCT WITH THE HIGHEST TOTAL SALES (QUANTITY * PRICE) FOR EACH CATEGORY.
- 4.FIND THE CUSTOMER WHO SPENT THE MOST MONEY ON ORDERS.
- 5.FIND THE HIGHEST-PRICED PRODUCT FOR EACH CATEGORY NAME.
- 6.FIND THE TOTAL NUMBER OF ORDERS PLACED BY EACH CUSTOMER PER STORE.
- 7.FIND THE NAMES OF STAFF MEMBERS WHO HAVE NOT MADE ANY SALES.
- 8.FIND THE TOP 3 MOST SOLD PRODUCTS IN TERMS OF QUANTITY.
- 9.FIND THE MEDIAN VALUE OF THE PRICE LIST.
- 10.LIST ALL PRODUCTS THAT HAVE NEVER BEEN ORDERED.(USE EXISTS)
11. LIST THE NAMES OF STAFF MEMBERS WHO HAVE MADE MORE SALES THAN THE AVERAGE NUMBER OF SALES BY ALL STAFF MEMBERS.
- 12.IDENTIFY THE CUSTOMERS WHO HAVE ORDERED ALL TYPES OF PRODUCTS (I.E., FROM EVERY CATEGORY).

I.FIND THE TOTAL NUMBER OF PRODUCTS SOLD BY EACH STORE ALONG WITH THE STORE NAME.

```
6 • SELECT
7     store_name, SUM(quantity) AS total_products
8 FROM
9     stores
10    JOIN
11    orders USING (store_id)
12    JOIN
13    order_items USING (order_id)
14 GROUP BY `store_id`
15 ORDER BY total_products DESC;
```

	store_name	total_products
▶	Baldwin Bikes	4779
	Santa Cruz Bikes	1516
	Rowlett Bikes	783

2. CALCULATE THE CUMULATIVE SUM OF QUANTITIES SOLD FOR EACH PRODUCT OVER TIME.

```
19 • SELECT
20     product_id,
21     order_date,
22     quantity,
23     SUM(quantity) OVER (PARTITION BY product_id ORDER BY order_date) AS cumulative_sum
24 FROM
25     products
26 JOIN
27     order_items USING (product_id)
28 JOIN
29     orders USING (order_id);
```

	product_id	order_date	quantity	cumulative_sum
▶	2	2016-01-03	2	2
	2	2016-01-14	2	4
	2	2016-01-18	1	5
	2	2016-02-05	1	6
	2	2016-02-09	1	7
	2	2016-02-26	1	8
	2	2016-03-08	1	9

3. FIND THE PRODUCT WITH THE HIGHEST TOTAL SALES (QUANTITY * PRICE) FOR EACH CATEGORY.

```
33 • with a as (  
34   select products.product_id, products.product_name, categories.category_id, categories.category_name,  
35   sum(order_items.quantity * (order_items.list_price - order_items.discount)) as total_sales  
36   from  
37   order_items join products on order_items.product_id = products.product_id  
38   join  
39   categories on products.category_id = categories.category_id  
40   group by products.product_id, products.product_name, categories.category_id, categories.category_name)  
41   select * from (select *, rank() over (partition by category_id order by total_sales desc) as rnk from a) b where rnk = 1;
```

	product_id	product_name	category_id	category_name	total_sales	rnk
▶	23	Electra Girl's Hawaii 1 (20-inch) - 2015/2016	1	Children Bicycles	4619278.00	1
	26	Electra Townie Original 7D EQ - 2016	2	Comfort Bicycles	8039320.00	1
	16	Electra Townie Original 7D EQ - 2016	3	Cruisers Bicycles	9359304.00	1
	11	Surly Straggler 650b - 2016	4	Cyclocross Bicycles	25382383.00	1
	9	Trek Conduit+ - 2016	5	Electric Bikes	43499347.00	1
	7	Trek Slash 8 275 - 2016	6	Mountain Bikes	61599226.00	1
	56	Trek Domane SLR 6 Disc - 2017	7	Road Bikes	23649774.00	1

4. FIND THE CUSTOMER WHO SPENT THE MOST MONEY ON ORDERS.

```
11 • SELECT
12     customers.customer_id,
13     CONCAT(customers.first_name, ' ', customers.last_name) AS customer_name,
14     SUM(order_items.quantity * order_items.list_price) AS total_spent
15 FROM
16     customers
17 JOIN
18     orders ON customers.customer_id = orders.customer_id
19 JOIN
20     order_items ON order_items.order_id = orders.order_id
21 GROUP BY
22     customers.customer_id, customers.first_name, customers.last_name
23 ORDER BY
24     total_spent DESC
25 LIMIT 1;
```

	customer_id	customer_name	total_spent
▶	10	Pamelia Newman	3780184.00

5.FIND THE HIGHEST-PRICED PRODUCT FOR EACH CATEGORY NAME.

```
71 • select * from
72 (select categories.category_name, products.product_name, products.list_price,
73 dense_rank () over (partition by categories.category_name order by products.list_price desc)
74 as rnk
75 from
76 categories
77 join
78 products on categories.category_id = products.category_id) a
79 where rnk = 1;
```

	category_name	product_name	list_price	rnk
►	Children Bicycles	Electra Straight 8 3i (20-inch) - Boy's - 2017	48999.00	1
	Children Bicycles	Electra Townie 3i EQ (20-inch) - Boys' - 2017	48999.00	1
	Children Bicycles	Trek Superfly 24 - 2017/2018	48999.00	1
	Comfort Bicycles	Electra Townie Go! 8i - 2017/2018	259999.00	1
	Cruisers Bicycles	Electra Townie Commute Go! - 2018	299999.00	1
	Cruisers Bicycles	Electra Townie Commute Go! Ladies' - 2018	299999.00	1

6. FIND THE TOTAL NUMBER OF ORDERS PLACED BY EACH CUSTOMER PER STORE.

```
48 • SELECT
49     customers.customer_id,
50     CONCAT(customers.first_name,
51            '',
52            customers.last_name) AS full_name,
53     stores.store_id,
54     stores.store_name,
55     COUNT(orders.order_id) AS total_number_of_orders
56 FROM
57     customers
58     LEFT JOIN
59     orders ON customers.customer_id = orders.customer_id
60     JOIN
61     stores ON stores.store_id = orders.store_id
62 GROUP BY 1 , 2 , 3 , 4;
```

	customer_id	full_name	store_id	store_name	total_number_of_orders
▶	259	JohnathanVelazquez	1	Santa Cruz Bikes	1
	175	NovaHess	1	Santa Cruz Bikes	2
	60	NeilMccall	1	Santa Cruz Bikes	2
	91	MarvinMullins	1	Santa Cruz Bikes	2
	258	MaribelWilliam	1	Santa Cruz Bikes	1
	552	LeaKey	1	Santa Cruz Bikes	1

7. FIND THE NAMES OF STAFF MEMBERS WHO HAVE NOT MADE ANY SALES.

```
27 • SELECT
28     staff_id, CONCAT(first_name, ' ', last_name) AS staff_name
29 FROM
30     staffs
31 WHERE
32     staff_id NOT IN (SELECT DISTINCT
33                       staff_id
34                       FROM
35                       orders);
```

	staff_id	staff_name
▶	1	Fabiola Jackson
	4	Virgie Wiggins
	5	Jannette David
	10	Bernardine Houston

8.FIND THE **TOP 3 MOST SOLD PRODUCTS** IN TERMS OF QUANTITY.

```
38 • SELECT
39     products.product_id,
40     products.product_name,
41     SUM(order_items.quantity) AS total_quantity_sold
42 FROM
43     order_items
44     JOIN
45     products ON order_items.product_id = products.product_id
46 GROUP BY products.product_id , products.product_name
47 ORDER BY total_quantity_sold DESC
48 LIMIT 3;
```

	product_id	product_name	total_quantity_sold
▶	6	Surly Ice Cream Truck Frameset - 2016	167
	13	Electra Cruiser 1 (24-Inch) - 2016	157
	16	Electra Townie Original 7D EQ - 2016	156

9. FIND THE MEDIAN VALUE OF THE PRICE LIST.

```
55 • SELECT
56     AVG(list_price) AS median_price
57 FROM (
58     SELECT
59         list_price,
60         ROW_NUMBER() OVER (ORDER BY list_price) AS row_num,
61         COUNT(*) OVER () AS total_rows
62     FROM
63         products
64 ) AS middle_values
65 WHERE
66     row_num IN (FLOOR((total_rows + 1) / 2), CEIL((total_rows + 1) / 2));
```

	median_price
▶	74999.000000

10. LIST ALL PRODUCTS THAT HAVE NEVER BEEN ORDERED. (USE EXISTS)

```
69 • SELECT
70     products.product_id, products.product_name
71 FROM
72     products
73 WHERE
74     NOT EXISTS( SELECT
75         *
76     FROM
77         order_items
78     WHERE
79         order_items.product_id = products.product_id);
```

	product_id	product_name
▶	1	Trek 820 - 2016
	121	Surly Krampus Frameset - 2018
	125	Trek Kids' Dual Sport - 2018
	154	Trek Domane SLR 6 Disc Women's - 2018
	195	Electra Townie Go! 8i Ladies' - 2018
	267	Trek Precaliber 12 Girl's - 2018
	284	Electra Savannah 1 (20-inch) - Girl's - 2018
	291	Electra Sweet Ride 1 (20-inch) - Girl's - 2018
	316	Trek Checkpoint ALR 4 Women's - 2019
	317	Trek Checkpoint ALR 5 - 2019
	318	Trek Checkpoint ALR 5 Women's - 2019

11. LIST THE NAMES OF STAFF MEMBERS WHO HAVE MADE MORE SALES THAN THE AVERAGE NUMBER OF SALES BY ALL STAFF MEMBERS.

```
103 • WITH K AS (  
104     SELECT  
105         staffs.staff_id,  
106         CONCAT(staffs.first_name, " ", staffs.last_name) AS full_name,  
107         COALESCE(SUM(order_items.quantity * order_items.list_price), 0) AS sales  
108     FROM staffs  
109     LEFT JOIN orders ON orders.staff_id = staffs.staff_id  
110     LEFT JOIN order_items ON order_items.order_id = orders.order_id  
111     GROUP BY 1, 2  
112 )  
113  
114 SELECT *  
115 FROM K  
116 WHERE sales > (SELECT AVG(sales) FROM K);
```

	staff_id	full_name	sales
▶	3	Genna Serrano	95272226.00
	6	Marcelene Boyer	293888873.00
	7	Venita Daniel	288735348.00

2. IDENTIFY THE CUSTOMERS WHO HAVE ORDERED ALL TYPES OF PRODUCTS (I.E., FROM EVERY CATEGORY).

```
12 • WITH K AS (  
13     SELECT  
14         customers.customer_id,  
15         CONCAT(customers.first_name, ' ', customers.last_name) AS full_name,  
16         COUNT(DISTINCT products.category_id) AS category_count  
17     FROM  
18         customers  
19     JOIN orders ON customers.customer_id = orders.customer_id  
20     JOIN order_items ON order_items.order_id = orders.order_id  
21     JOIN products ON products.product_id = order_items.product_id  
22     GROUP BY 1, 2  
23 )  
24  
25 SELECT *  
26 FROM K  
27 HAVING category_count = (SELECT COUNT(*) FROM categories);
```

	customer_id	full_name	category_count
▶	9	Genoveva Baldwin	7



THANK  YOU